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POLICY BRIEF

20-15 Taming the US Trade Deficit: A Dollar Policy for Balanced Growth

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President Donald Trump launched a trade war to eliminate the longstanding US trade deficit. But the trade deficit has only grown on his watch because tariffs were the wrong policy choice.

Trade deficits are not always a bad thing, but a wealthy country like the United States should not run a perpetual deficit. Decades of US trade deficits have piled up debt that makes future generations of Americans less well off, as they must pay interest and dividends to foreigners. Cheap imports and the decline in exports have also contributed to the loss of a significant number of US manufacturing jobs.

The main cause of the deficit is a secular overvaluation of the dollar, driven by excessive financial flows into dollar assets from foreign official and private investors. Although Trump's policies have failed, achieving balanced trade is not a hopeless quest. President-elect Joseph Biden should direct his Treasury secretary to pursue a more sensible dollar policy that can tame the deficit without violating any international norms or rules.

The failure of Trump's tariff-based approach to shrinking the trade deficit comes as no surprise to economists. Mainstream economics says that tariffs mostly affect relative prices across countries and the overall level of trade, not the balance of trade. Combating foreign currency manipulation is the one element of Trump's strategy that has the potential to help, but the single-minded focus on China—which has not manipulated its currency since 2014—has blinded the administration to ongoing manipulation by other countries.

Dollar policy is essential for reducing the trade deficit. The first priority is to head off a recent resurgence of foreign currency manipulation through a credible threat of counter-intervention by the United States. Further action should wait until the harmful economic effects of the COVID-19 pandemic are well behind us. At that point, if the US trade deficit is projected to remain as large or larger than it is now, additional steps should be taken.

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Two policy options can deal with a deficit that persists even in the absence of foreign currency manipulation.[1] Both would push the values of foreign currencies up against the dollar to make US exports cheaper to foreign buyers and foreign exports more expensive to US buyers. First, the US Treasury or the Federal Reserve could sell dollars to buy foreign currencies, pushing those currencies up against the dollar. Second, the US Treasury could tax foreign investors in the United States, either on their initial purchases of US assets or on the income they earn on US assets. Such taxes make investment in the United States less attractive and push the dollar down against other currencies.

The overall goal of monetary, fiscal, and dollar policies should be to achieve maximum sustainable employment and output with low inflation and a trade balance within reasonable bounds. Monetary and fiscal policies should focus on employment and inflation, and dollar policy should focus on the trade balance. This constellation of policy goals—and the actions required to achieve them—are fully consistent with US international obligations and the stated objectives of the leaders of the G20 nations.

WHAT CAUSES TRADE DEFICITS?[2]

A trade deficit occurs when a country borrows more than it lends to the rest of the world. When imports exceed exports, a country must borrow to pay the difference.[3] A trade surplus means the country is lending on balance to the rest of the world.

Economic theory shows that tariffs and other barriers to trade have little or no effect on the balance of trade. Instead, such barriers raise prices in the country that imposes them relative to prices in other countries, typically by appreciating the country's exchange rate. Studies confirm that tariffs have no statistically significant effect on trade balances but that they tend to appreciate a country's exchange rate (Gagnon 2017, Furceri et al. 2019, Jeanne 2020). Nontariff barriers are difficult to measure, but there is no reason to believe that their effects on trade are any different from those of tariffs.

The sources of trade imbalances are found in the sources of saving and investment decisions. They include a country's demographic characteristics, its stage of development, and its growth prospects. Younger, poorer, and faster-growing countries tend to borrow and run trade deficits; older, richer, and slower-growing countries tend to lend and run trade surpluses (Chinn and Prasad 2003, Chinn 2017, Gagnon 2017). These effects are larger when countries impose fewer restrictions on cross-border borrowing and lending.

1 A third option, cutting government spending and raising taxes, would directly reduce spending on imports and might weaken the dollar, but it would deepen the recession and slow the recovery.

2 The best and broadest measure of the trade balance is the current account balance, which includes all payments made to and received from foreigners. In this Policy Brief, *trade deficit* refers to the current account deficit unless otherwise specified.

3 *Borrowing* is defined here broadly to include sales of financial assets to foreigners. Strictly speaking, being a net borrower increases a country's liabilities to foreigners more than its claims on foreigners. Liabilities to foreigners include loans from foreign banks to local residents, purchases of local stocks and bonds by foreigners, and direct investment by foreigners in local businesses and real estate.

By far the most important factors affecting a country's trade balance are its fiscal policy (public saving) and exchange rate policy. Together these factors explain roughly half of all variation in trade balances across countries and over time; other measurable long-term factors explain only an additional 7 percent of variation (Gagnon 2017, table A.2). In addition to these long-term factors and policies, trade balances respond to short-term swings in economic activity, also known as business cycles. A booming economy tends to suck in imports and push trade into deficit, whereas a recession tends to crimp imports and push trade into surplus.

Short-lived cyclical imbalances are not a serious concern; it is persistent imbalances that cause harm. Countries with persistently large fiscal deficits tend to run trade deficits. Countries that actively hold their currencies down by buying large amounts of foreign currencies tend to run trade surpluses.[4] Reducing persistent imbalances is feasible if countries are willing to adopt the right policies. Because imbalances depend equally on the policies adopted at home and abroad, the world needs sensible "rules of the road" to prevent destabilizing policy conflicts.

WHY DO TRADE DEFICITS MATTER?

Trade deficits are sometimes beneficial. They can enable poor countries to grow faster by allowing increased investment in productive infrastructure, mines, and factories. They can divert excess demand during an unsustainable boom to avoid rising inflation. But they can also cause harm, by prolonging or deepening a recession or supporting unproductive "white elephant" projects that are not able to generate the revenues needed to repay foreign lenders.

Excessive Debt

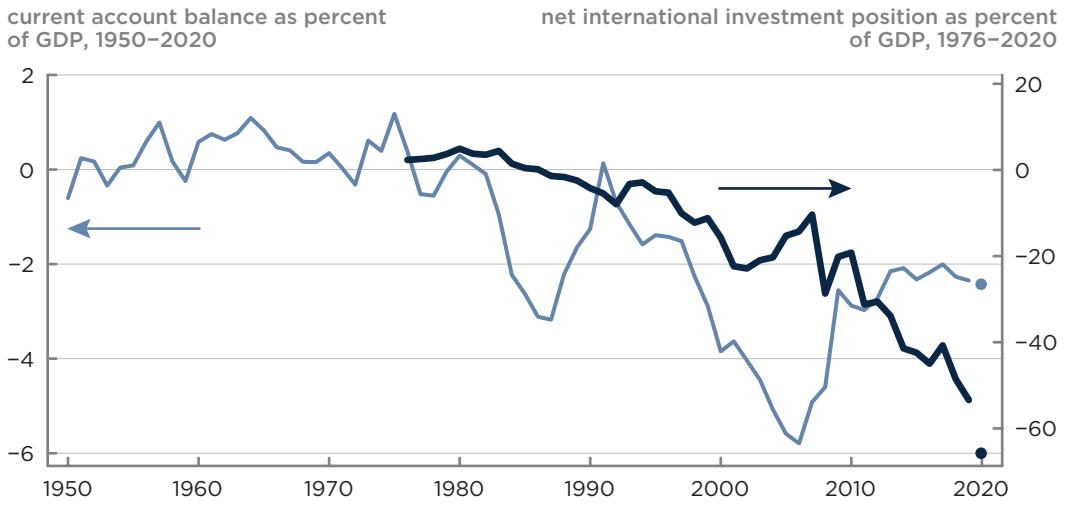
History shows that financial markets are prone to fads, excesses, and waves of greed and myopia followed by panics. Prolonged trade deficits and excessive international borrowing are a well-documented cause of costly financial crashes (Goldstein 1998, IMF 2020). These crashes cause unemployment and poverty to soar and growth and stock markets to collapse. Foreign creditors also suffer massive losses on their investments.

Even when trade deficits do not lead to financial crisis, they still pile up debt on future generations. Unlike domestic fiscal deficits, trade deficits do not reflect "borrowing from ourselves." The debt service cost of foreign borrowing is a payment that goes to foreigners.

The US trade balance was close to zero between 1950 and 1980 (figure 1). Since then, it has fluctuated around an average deficit of 2.5 percent of GDP. The nearly continuous net borrowing associated with this trade deficit pushed the US net international investment position (US financial claims on foreigners minus foreign financial claims on the United States) to –53 percent of GDP by yearend 2019. It plummeted further to –69 percent of GDP in 2020Q2, reflecting a dollar

4 Selling a country's own currency to buy foreign currencies requires borrowing at home to lend abroad. Doing so pushes up domestic interest rates and pushes down foreign interest rates, thereby increasing saving relative to investment at home and decreasing it abroad. This shift in saving-investment balances is the financial counterpart to the rising trade balance.

Figure 1
US trade deficit puts net international investment position on a downward trend



Note: The net international investment position does not include US holdings of monetary gold. Data for 2020 are for first two quarters only.

Sources: Author's calculations based on data from Federal Reserve Bank of St. Louis and IMF Balance of Payments database.

appreciation that reduced the value of US foreign assets and a plunge in GDP because of the COVID-19 pandemic. Some rebound from this depressed level is likely in coming quarters.

If the borrowing is used to finance investment that earns a higher return than is paid on the debt, a trade deficit makes a country richer. For this reason, trade deficits in fast-growing emerging markets can be beneficial, at least in principle. If, however, the debt is used to finance consumption, as is the case in the United States, a trade deficit makes a country poorer.[5] The current generation gets to consume more and future generations have to consume less.

Despite having considerably more liabilities to foreigners than claims on foreigners, the United States records a small surplus in net income on international investments, as a result of both a real economic factor and a major measurement error. The real factor is that US liabilities include a large share of Treasury bonds that are viewed as a safe asset around the world and pay very low rates of interest. US investors hold relatively few foreign bonds with comparably low rates of interest. Thus, the average rate of return on US foreign assets tends to be higher than that on US foreign liabilities.

The illusory factor reflects international tax treatment that encourages both US and foreign firms to transfer profits out of US operations into affiliates in foreign tax havens. This accounting fiction lowers the reported return on US international liabilities and raises the reported return on US international assets, leading to a spurious surplus on net international investment income. Recent

5 US public and private consumption (the part of income that is not saved) was 81 percent of GDP in 2019. For the largest advanced economies with trade surpluses (Germany, Hong Kong, Italy, Japan, Korea, the Netherlands, Singapore, Spain, Sweden, Switzerland, and Taiwan), consumption rates ranged from 58 to 79 percent of GDP (IMF *World Economic Outlook* database, October 2020.)

studies suggest that correcting for the effects of this error would reduce net investment income by more than 1.6 percent of GDP in 2014, or more than $280 billion, moving it into deficit (Guvenen et al. 2017).[6]

The evidence shows that countries where the net international investment position falls below about –60 percent of GDP often run into trouble, experiencing either rapid or gradual reversals (Bergsten and Gagnon 2017, chapter 3). The US net investment position has reached a level that has proved dangerous for other countries. Because the United States borrows entirely in its own currency, much of the harmful effects of any disorderly adjustment fall on foreigners, who would experience a sharp decline in the value of their dollar investments. Nevertheless, a rapid reduction of the deficit would impose significant adjustment costs on US firms and workers. Because the burden of the debt on future generations and the ultimately needed adjustment increase as long as the deficit continues, it is better to embark on a gradual reduction in the deficit sooner rather than later.

Protectionist Pressures

In the United States, large trade deficits (or payments imbalances under fixed exchange rate regimes) have been associated with rising protectionist pressures. That was the case in the early 1970s and mid-1980s. It may also explain some of the success of President Trump's election campaign in 2016, despite the partial narrowing of the large pre-2010 US trade deficit.

Bergsten (2016) explains how rising protectionist pressures in Congress induced the Nixon administration in 1971 and the Reagan administration in 1985 to take aggressive actions to weaken the dollar. Both administrations correctly saw that trade protection would provide at most a temporary reprieve to affected industries while causing lasting damage to the US economy. The dollar devaluation of 1971–73 and the coordinated dollar depreciation of 1985–87 quickly relieved the protectionist pressures and gradually shrank trade and payments deficits without distorting the global trading system.

Trade deficits drive protectionist pressures because of the visible losses of employment in industries that suffer increased import competition. These pressures are particularly severe when the economy is in recession or slow recovery from a recent recession. Such pressures can be stoked even during a period of high employment, however, by appeals to nationalistic or xenophobic sentiment. In his 2016 presidential campaign, Trump frequently complained that the US trade deficit means that Americans are "losing" from international trade.

A survey by the Pew Research Center in 2014 revealed that 50 percent of US respondents believed that international trade leads to job losses and only 20 percent believed it leads to job creation. In contrast, in China only 11 percent believed trade leads to job losses, with 67 percent believing it leads to job creation. It is surely no coincidence that the United States had a large trade

6 The $280 billion estimate is based solely on US investment abroad. A similar incentive applies to foreign investment in the United States, which implies an even larger mismeasurement. Correcting these measurement errors would increase US goods and services exports by an almost equal amount, leaving the current account balance roughly unchanged. For more on the distortionary effect of tax havens on US international data, see Setser (2019).

deficit in the years before the survey and China had a large trade surplus. It seems the public may find a zero-sum vision of trade persuasive, which could lead to support of harmful protectionism.[7]

Unemployment

In the popular conception, trade deficits cost jobs. But trade deficits often occur when jobs are plentiful, because of a booming economy. In that case, trade is a useful pressure release valve for the economy, siphoning off excess jobs to trading partners to avoid inflationary pressure at home.

Trade deficits caused by currency appreciation, however, do cost jobs, at least temporarily. In the Federal Reserve Board's FRB/US model, a 10 percent persistent appreciation of the dollar raises the unemployment rate for six years, with a peak increase of 0.25 percentage points (Laforte 2018). The effect is relatively small and temporary, because monetary policy is assumed to respond by lowering the short-term interest rate, thereby stimulating overall spending and boosting employment in sectors less exposed to trade. Similar results obtain in other macroeconomic models, including the G20 model of the International Monetary Fund (IMF).

Macro models are typically based on historical relationships in the data, but they also require assumptions and simplifications of the economy, which may occasionally lead to faulty predictions. Even so, there are strong empirical grounds to support the conclusion that currency-driven trade deficits do reduce output and employment.

The evidence starts with the venerable literature on exchange rates and trade. The IMF's *World Economic Outlook* (2015) reestimated standard trade volume and price elasticity regressions for 23 advanced and 37 developing economies. The regressions find that on average, a 10 percent appreciation of a country's currency reduces its inflation-adjusted trade balance by 1.5 percent of GDP. The average effect on the nominal trade balance is a bit smaller, because import prices tend to fall more than export prices. For the United States, the IMF (2020) estimates that a 10 percent appreciation of the dollar widens the US trade deficit 1.1 percent of GDP after a couple of years.

The initial effect of a currency appreciation is to reduce demand and production in industries that produce exports or goods that compete with imports. In the absence of any response of monetary or fiscal policy, the depressing effect on overall output is roughly as large as the increase in the trade deficit at first, and this effect may grow over time, thanks to Keynesian multiplier effects. For example, between 1920 and 1925 the UK government returned the pound to its pre-war gold parity, requiring a nearly 40 percent appreciation against the US dollar. Monetary and fiscal policies were not used to cushion the blow, as such policies would have forestalled the intended deflation of UK prices. Unemployment soared from 3 percent in 1920 to 22 percent in mid-1921 and remained in double digits for years (Skidelski 1998).

7 A 2018 Pew survey (which did not include China) reveals a significant shift in US attitudes to rough parity between job loss and job creation. The shift may reflect the narrowing of the trade deficit and a rejection of President Trump's well-known views by respondents who disapprove of the president. See www.pewresearch.org/global/question-search/?qid=1890&cntIDs=&stdIDs.

Under fixed exchange rates (including the gold standard era), monetary policy lacks the freedom to maintain full employment; fiscal policy may also face limits. Flexible exchange rates enable countries to manage their own monetary and fiscal policies to maintain full employment and stable prices, regardless of conditions in their trading partners (Gagnon 2011).[8] Unfortunately, policymakers have not always acted quickly or forcefully enough. Insufficient monetary and fiscal stimulus prevented a rapid recovery from the Great Recession in many economies, including the United States. During the recession, the US trade deficit shrank by half, shielding the US economy from an even larger downturn. But massive currency manipulation by key US trading partners prevented further adjustment of the dollar and the trade deficit, slowing the pace of recovery (Bergsten and Gagnon 2017, chapter 4).[9]

The problem of insufficiently forceful macroeconomic policy has been exacerbated in recent years by the very low levels of interest rates. As they were in the Great Depression of the 1930s, interest rates in many countries are now close to their effective lower bound (ELB), reducing the scope for easier monetary policy.[10] Although fiscal policy retains its potency, concerns about high levels of government debt make policymakers reluctant to use this tool aggressively. These concerns may be exaggerated and lead to insufficient use of the fiscal tool. Nevertheless, there are costs of debt even when they are lower than the benefits. Policymakers may therefore prefer to use other tools to achieve full employment whenever possible.

Exchange rate policy is particularly attractive when monetary policy is constrained by the ELB, because it does not require running a fiscal deficit. Instead, a government can sell its own currency in exchange for foreign currencies, pushing the value of its currency—and the price of its exports—down in terms of foreign currencies. The boost to its exports and employment comes entirely at the expense of its trading partners, who experience a decline in their trade balances. They also experience a decline in employment unless they quickly ease their own monetary policy (which may not be possible because of the ELB) or fiscal policy (which carries its own costs). Exchange rate policy is thus a beggar-thy-neighbor policy when interest rates are at the ELB (Eggertsson et al. 2016).

It is doubtless the powerful macroeconomic effects of exchange rates and trade at the ELB that explain the obvious discomfort central bankers have experienced when their currencies appreciated at various times over the past decade. For example, after the euro appreciated 16 percent against the dollar in the first eight months of 2017, the president of the European Central Bank (ECB), Mario Draghi, acknowledged that "most members" of the ECB's governing council had expressed concerns about the euro's value. "The exchange rate is

8 Perhaps the first economist to take this position was John Maynard Keynes (1936), who decried the shackles imposed by fixed exchange rates (in the form of the gold standard) on a central bank's ability to manage domestic interest rates and maintain full employment.

9 Freund and Warnock (2007) find that trade deficits diminish sharply during recessions sparked by corrections in unsustainable consumption or investment. They note that output declines less when the exchange rate is allowed to depreciate.

10 The ELB was long thought to be zero, but a number of central banks implemented modestly negative interest rates in recent years. It is not clear how low negative rates can go, but no central bank has set interest rates below −0.75 percent.

not a policy target," he said, "but it's very important for growth and inflation."[11] In April 2016, the governor of the Bank of Japan, Haruhiko Kuroda, said that the roughly 10 percent appreciation of the yen in early 2016 was "excessive" and blamed it for the reduction in the forecast of Japanese economic growth.[12]

Manufacturing

Even when macroeconomic policy succeeds in minimizing the effect of a currency appreciation on overall growth and employment, it cannot prevent a growing trade deficit from shifting production and jobs out of manufacturing into other sectors. Loss of manufacturing jobs is politically sensitive in many countries, reflecting a widespread perception that these are "good" jobs for people who are left behind in the switch to more education-intensive service sector jobs.

The experiences of countries with newly discovered natural resources can be instructive. The exploitation of an exportable natural resource typically causes a country's currency to appreciate. The appreciation crowds out nonresource exports and encourages more imports to keep the country's trade in balance. Jobs lost in the tradables sector (primarily manufacturing) are roughly balanced by job gains in nontradables (mostly services) that are supported by the increased overall income from resource extraction.

The development of oil shale fracking early in the past decade and the consequent decline in world oil prices essentially eliminated the US oil trade deficit by 2019, as shown in the lower panel of figure 2. The prospect of self-sufficiency in oil was likely a major contributing factor behind the roughly 16 percent rise in the real trade-weighted exchange value of the dollar between mid-2014 and late 2015, as indicated by the horizontal lines in the upper panel.[13] Between 2013 and 2017, the nonoil goods and services trade deficit as a share of GDP widened by 1 percentage point, mainly in response to the dollar appreciation. Manufacturing value added, which had been fairly stable as a share of nominal GDP in 2012–14, dropped 0.70 percentage points by 2017. Hours worked in manufacturing as a share of domestic hours worked dropped 0.35 percentage points.[14]

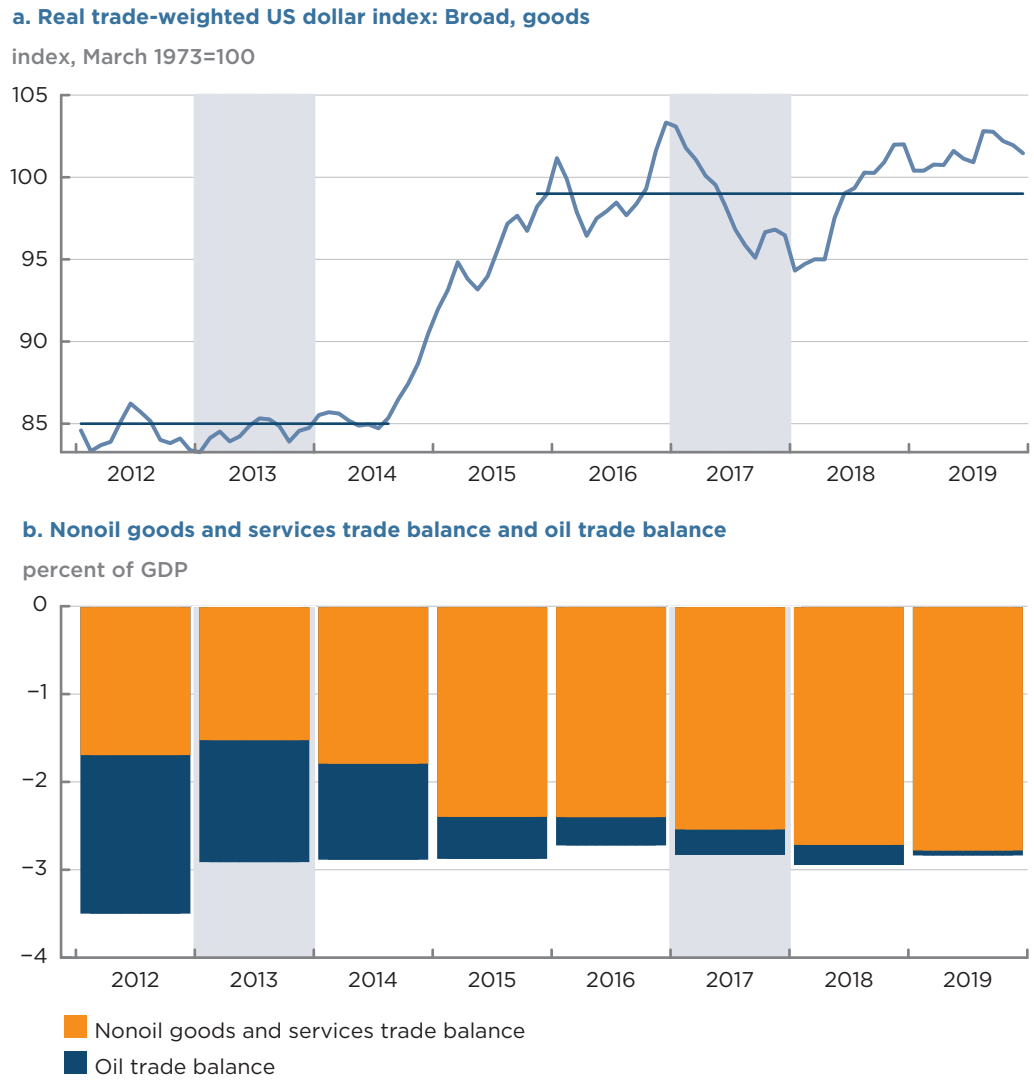
11 Ben Chu, "European Central Bank President Warns over the Euro's Rapid Appreciation," *The Independent*, September 7, 2017, www.independent.co.uk/news/business/news/european-central-bank-euro-exchange-rate-appreciation-mario-draghi-ecb-president-a7934596.html.

12 Takashi Nakamichi, "Bank of Japan's Kuroda Calls Yen's Recent Rise 'Excessive,'" *Wall Street Journal*, April 14, 2016, www.wsj.com/articles/bank-of-japans-kuroda-calls-yens-recent-rise-excessive-1460663263.

13 The solid growth of the US economy in relation to other advanced economies—which was driven partly by the fracking boom—raised expectations of future US interest rates, putting upward pressure on the dollar.

14 Data are from the Federal Reserve Board and the US Bureau of Economic Analysis. Before 2010, manufacturing hours and manufacturing value added (expressed as shares of domestic hours and GDP, respectively) moved closely together, with hours typically declining a bit more than value added: Between 2010 and 2019, manufacturing value added dropped about 1 percentage point but hours worked dropped only about half a percentage point. It may be that firms were reluctant to lose workers in a tight labor market, fearing that it would be hard to replace them if conditions improved.

Figure 2
Consequences of the oil fracking boom for US trade and the dollar



Note: Horizontal lines in panel a indicate the average values of the exchange rate shortly before and after the appreciation of late 2014 and 2015. The grey shading denotes the two years used to calculate the net economic effects of the appreciation.

Sources: Author's calculations based on data from the US Bureau of Economic Analysis and the Federal Reserve Board.

If US trade had been balanced before the fracking boom and the increase in US oil production was expected to be long lasting, this sectoral adjustment would have been both necessary and desirable. However, in the context of an overall trade deficit that is excessive and unsustainable, the shrinkage of the manufacturing sector is costly and undesirable. At some point, the United States must return to balanced trade, and an increase in US manufacturing output will be needed to supply the additional exports and replace lost imports. The fracking boom represents a lost opportunity to move the US trade deficit toward zero while avoiding a wasteful sectoral adjustment away from manufacturing.

NORMS FOR DEFICITS

Since 2011, the IMF has published annual *External Sector Reports* that include norms for trade balances for large and medium-sized economies. The norms are based on statistical analysis of cyclical and secular factors that are believed to affect trade balances, including exchange rate, financial, and fiscal policies. A country's norm is based on exogenous factors after removing cyclical effects and the effects of policy settings that are asserted to deviate from desired levels in both the country and its trading partners. In addition, IMF staff make ad hoc adjustments for factors that are not well captured by the overall statistical model.

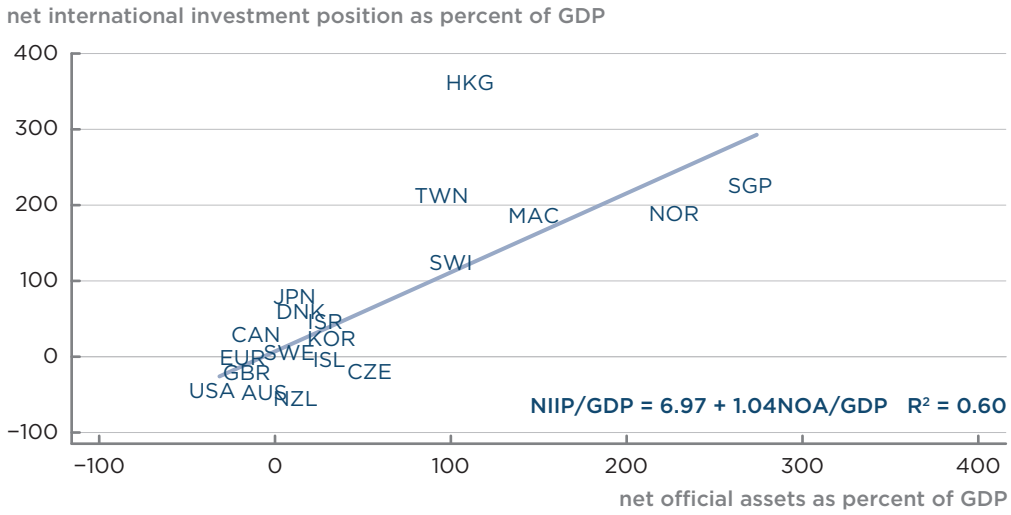
This approach is the right one, at least in principle. For the largest economies, the latest norms (for 2019) are broadly reasonable: China –0.4, euro area 1.7, India –2.4, Japan 3.5, and the United States –0.7 (all expressed as a percent of GDP). As an economy that is both rapidly growing and relatively youthful, India would be expected to have a moderate trade deficit. China is also growing rapidly, but its aging workforce saves a lot, resulting in a trade balance norm close to zero. The euro area and Japan are growing very slowly and have old workforces, supporting moderate trade surpluses. The United States is in the middle on growth and demographics, and so is its trade balance norm. The IMF approach treats foreign official holdings of dollars as an exogenous factor, pushing down the US trade balance. If these holdings were treated as a policy choice that is larger than desired (in terms of both the overall size of official holdings and their concentration in US dollars), the US trade balance norm would be even closer to zero.

According to the IMF, the gap between the cyclically adjusted US trade deficit of 2 percent of GDP and the norm of 0.7 percent of GDP implies that the dollar was overvalued by 11 percent in 2019. If a norm of 0 percent of GDP is chosen, the overvaluation would be 18 percent. The 1 percentage point decline in the nonoil trade balance after the 16 percent dollar appreciation of 2014–15 suggests the possibility that it may take even more than an 18 percent depreciation to shrink the trade deficit by 2 percentage points. (Both the IMF's estimate and the back-of-the-envelope exercise in the previous section are subject to a wide range of uncertainty.)

For a number of small and medium-sized economies with large surpluses, the IMF norms appear skewed toward ratifying those surpluses. Examples include Hong Kong, Singapore, Switzerland, Thailand, and, to a lesser extent, Korea. Other economies with large surpluses, including Taiwan and some major oil exporters, are excluded from the IMF analysis. The common thread in all of these surplus economies is large official purchases of foreign currency assets at various points over the past two decades. These purchases support trade surpluses both when they are occurring and long afterward, as the accumulated stock of assets continues to weigh on exchange rates.

The IMF analysis assumes that foreign exchange intervention has no effect in economies with no legal restrictions on capital mobility. It also ignores official flows from sovereign wealth funds. However, net international investment positions are strongly correlated with net official assets in advanced economies, which generally have few restrictions on capital mobility (figure 3). The net investment positions are essentially the cumulation over time of a country's trade surpluses; net official assets are the cumulation of foreign exchange intervention and other net official financial flows.

Figure 3
International investment positions are strongly correlated with official assets of advanced economies in 2018



Note: Foreign holdings of international reserves are subtracted from the net official assets of reserve currency–issuing countries based on IMF data. Economies plotted are Australia, Canada, the Czech Republic, Denmark, the euro area, Hong Kong, Iceland, Israel, Japan, Korea, Macao, New Zealand, Norway, Singapore, Sweden, Switzerland, Taiwan, the United Kingdom, and the United States.

Sources: Author, based on data from Lane and Milesi-Ferretti (2018), Collins and Gagnon (2020), and the IMF Currency Composition of Official Foreign Exchange Reserves database.

Statistical analysis of the data in figure 3 strongly supports a connection between these variables. Foreign exchange intervention is a major driver of trade surpluses even in countries with few legal restrictions on capital flows.[15] Indeed, net official assets account for 60 percent of the differences in net international investment positions across the economies included in figure 3. The IMF is wrong to conclude that massive trade surpluses of this small group of countries do not reflect a major policy distortion.

However, not all trade surpluses are driven by foreign exchange intervention. Surpluses in Germany and the Netherlands, which far exceed the IMF norms, derive primarily from excessively tight fiscal policies and the internal dynamics of the euro area, which holds their exchange rates below what they would be if they had independent currencies.

DEALING WITH CURRENCY MANIPULATORS

Bergsten and Gagnon (2017) propose numerical criteria to operationalize the prohibition against currency manipulation contained in Article IV of the IMF Articles of Agreement:

- The current account surplus exceeds 3 percent of GDP.
- Net official acquisitions of foreign currency assets exceed 2 percent of GDP.

15 The only other possibility is that officials in these countries have rules that set intervention roughly equal to their trade balances and that this policy choice has no feedback onto the trade balance. It is far more plausible that intervention arises from a desire to invest public savings (Norway, Singapore) or prevent exchange rate appreciation that would reduce the trade surplus (Hong Kong, Switzerland).

- Net official acquisitions exceed 65 percent of oil exports net of production cost.
- Net official assets exceed three months of imports.
- Net official assets exceed 100 percent of short-term external debt.
- The World Bank classifies the country as high income or upper-middle income.

Bergsten and Gagnon identify 20 economies that exceeded all of these criteria in at least one year during the "decade of manipulation" (2003–13). During these 11 years, foreign exchange intervention by these 20 economies, led by China, averaged nearly $1 trillion a year and widened the US current account deficit by at least $200 billion on average.

Currency manipulation declined considerably after 2013, but it never disappeared. Using updated and improved data, Collins and Gagnon (2020) identify five economies—Iceland, Singapore, Switzerland, Taiwan, and Thailand—that exceeded the criteria in 2019.[16] Table 1 displays net official flows from these economies (except Iceland, which had only minor flows) as well as Hong Kong and Korea, which exceeded the criteria in the past and continue to hover at levels just below the criteria.[17] In 2019, net official flows from these six economies were $184 billion. In the first three quarters of 2020, their net official flows soared to an annualized rate of $374 billion.

To combat currency manipulation, Bergsten and Gagnon proposed that the United States undertake countervailing currency intervention against G20 countries that exceed the criteria for manipulation. The amount of intervention would be set equal to the observed intervention of the manipulating country, so that it would exactly neutralize the effects on trade imbalances. Given the unparalleled borrowing power of the US Treasury, plus the unlimited money-creating power of the Federal Reserve, no country could hope to win an intervention war against the United States, especially as doing so would be prolonging unsustainable imbalances whereas the United States would be acting to return trade balances to a sustainable path.

The US Congress would need to support this policy by either exempting debt used to buy foreign exchange from the debt ceiling (or eliminating the debt ceiling) or adding balanced trade to the Federal Reserve's official mandate, with the understanding that the Fed should use its currency intervention authority to achieve that element of the mandate. By giving the Fed control over dollar policy to achieve the new component of its mandate, Congress would not be endangering the Fed's ability to achieve the employment and price stability elements with monetary policy.

16 In August 2020, the US Treasury issued a ruling that Vietnam's currency is undervalued (https://www.omfif.org/treasury-letter-to-adcvd-case-c-552-829-vietnam/). The ruling supports the imposition of countervailing duties by the Commerce Department on some of Vietnam's exports to the United States. Vietnam has been intervening heavily in the foreign exchange market to hold its currency down and support a large trade surplus. However, its holdings of foreign exchange reserves net of public external debt (net official assets) are well below the Bergsten-Gagnon criteria. The US Treasury does not have a numerical criterion for reserve holdings or any adjustment for external debt.

17 Financial flows include market purchases and sales as well as interest and dividend income that is passively reinvested in foreign assets. Flows do not include valuation adjustments from fluctuations in market prices.

Table 1
Net official flows of selected economies with trade surpluses, 2019 and 2020 (billions of dollars)

	Net official flows		Current account surplus
Economy	*2019*	*2020*	*2019*
Hong Kong	6	8	22
Korea	19	28	60
Singapore	110	101	63
Switzerland	16	193	80
Taiwan	16	21	65
Thailand	17	23	38

Note: Data for 2020 are the sum of net official flows for the first and second quarters plus the change in foreign currency reserves in the third quarter, expressed at an annualized rate. Official flows include reserve flows and other acquisitions of foreign assets by the central bank or general government minus any official borrowing in foreign currency.

Sources: Author's calculations based on data from Bloomberg, IMF, and national central banks and statistical agencies.

Perhaps motivated in part by Bergsten and Gagnon (2012), the G20 countries adopted a pledge to "not target our exchange rates for competitive purposes" in 2013.[18] After a rocky start by China and Korea, none of the G20 countries has exceeded the Bergsten-Gagnon criteria since 2015. Nevertheless, the temptation to return to manipulation is likely to be high in a world in which monetary and fiscal policy options appear to be limited.[19] The discomfort displayed by central bankers with appreciating currencies in recent years is a reminder of the power of exchange rates to influence economic outcomes.

What about Non-G20 Manipulators?

None of the manipulators in 2019 is a member of the G20, although Switzerland's economy is larger than the economies of G20 members Argentina and South Africa and roughly as large as those of Saudi Arabia and Turkey.[20] The principle of equal treatment argues for applying sanctions to small and medium-sized

18 "Communiqué of Meeting of G20 Finance Ministers and Central Bank Governors," February 16, 2013, http://www.g20.utoronto.ca/2013/2013-0216-finance.html.

19 Indeed, given the new focus on foreign exchange reserves, it will be important to ensure that countries do not attempt to avoid censure as currency manipulators by making officially directed purchases through institutions and accounts outside of conventional foreign exchange reserves. For example, a few years ago, Japan raised the target share of foreign assets in its Government Pension Investment Fund (social security fund) from 20 to 40 percent. Setser (2020) questions whether state-owned firms in China might be directed to increase their net exposure to foreign currencies to relieve upward pressure on the currency without adding to China's foreign exchange reserves.

20 These figures are based on GDP in US dollars for 2019 from the IMF's *World Economic Outlook* database, October 2020.

currency manipulators. The best forum for such sanctions is the IMF, but IMF staff have long been blinded by faulty assumptions (discussed above) about the effects of policy distortions on small and medium-sized surplus economies. At a minimum, the United States needs to press its case more forcefully within the IMF Executive Board. If several of the economies in table 1 exceed the criteria for currency manipulation in 2020 with combined purchases in the hundreds of billions of dollars—as data for the first three quarters of 2020 suggest—the United States should extend the range of economies subject to countervailing currency intervention beyond the G20.

Smaller economies have long felt free to ignore the impact of their policy choices on the rest of the world, because that impact was individually small. However, if several medium-sized economies engage in the same distortionary policy, the combined effect on their trading partners may be large. Combined foreign exchange intervention of the economies in table 1 of more than $370 billion in 2020, if it materializes, would be larger than that of any economy during the past 20 years except China—and China exceeded that value in only five years (Bergsten and Gagnon 2017, table A1). The net effect would be to keep the US trade deficit larger than it otherwise would have been by $100 billion or more.

Circumstances differ across the economies in table 1, but the upsurge of intervention in 2020 mainly reflects a desire to prevent currency appreciation that would put downward pressure on output and inflation. Given that the pressure originates in the foreign exchange market, it is natural for central banks in these countries to use foreign exchange intervention to counter it. However, upward pressure on their currencies reflects the market's appetite for financial assets in these economies, and this pressure is in the direction of narrowing excessive trade surpluses. In the parlance of the IMF's Article IV, these economies are "manipulating exchange rates… to prevent effective balance of payments adjustment." The IMF's failure to chastise them (except Taiwan, which is not a member of the IMF) is an inexplicable breach of its own surveillance obligations.

To allow adjustment of their excessive trade surpluses without suffering recessions, central banks in these economies should reduce policy interest rates where possible and purchase more long-term domestic assets (quantitative easing) and fewer foreign assets.[21] Most important, all of these economies have plenty of fiscal space, with low net public debt and deficits. Most were running fiscal surpluses in 2019. At a time when the largest economies have greatly expanded their fiscal deficits, these medium-sized economies should do at least as much if not more, given the greater fiscal space they are starting with.

In a world of volatile capital flows, it is possible that small and medium-sized surplus economies may face deflationary exchange rate pressures too large to combat solely with accommodative monetary and fiscal policies. In that case, and in consultation with the IMF and the authorities in recipient countries, policymakers should be allowed to purchase foreign currency assets. Such purchases must be a last resort, however, and they must be used in combination with other policy actions, not alone.

21 For a more detailed discussion of policy options in Hong Kong, Singapore, and Switzerland as of 2014, see Gagnon (2014).

BEYOND CURRENCY MANIPULATION

Currency manipulation was the largest single driver of global trade imbalances in 2003–13. However, it was not the only driver. In recent years, other drivers—including divergent fiscal policies, demographic trends, and an excessive financial market preference for US dollar assets—have come to the fore.

At about 2.5 percent of GDP, the US current account deficit is significantly larger than a reasonable norm of zero or even the IMF staff's norm of 0.7 percent of GDP. A looser norm of merely stabilizing the US net international investment position as a share of GDP would call for a deficit no larger than 2 percent of GDP.[22] To be sure, a deficit of 2.5 percent of GDP is only moderately excessive, as opposed to the highly excessive deficit of 6 percent of GDP in 2006.

There are thus strong grounds for adopting policies to shrink the US trade deficit gradually toward zero, but there is little urgency to start now. Indeed, the turmoil caused by the COVID-19 pandemic makes this a bad time to launch new policies that are likely to prove controversial with US trading partners. The only exception is countervailing currency intervention aimed at deterring a resurgence of currency manipulation. The main focus of US international financial policy over the next year or so should be to rebuild relationships with its traditional allies and international institutions.

After the economic recovery from the pandemic is well under way, the United States should take stock of the economic situation and prospects for the trade deficit. If the deficit is expected to remain above 2 percent of GDP, policies should be put in place to gradually reduce it. Fiscal policy should be used for this purpose only if output and employment are judged to be above their maximum sustainable levels. Otherwise, exchange rate policy should be used.

The first step would be to announce that balanced trade is the main objective of US dollar policy. The next step would be to discuss a new strategy for increasing foreign exchange reserves. It is likely that simply raising the possibility of future currency purchases would have a downward effect on the dollar. Policymakers would be wise to stress the gradual and limited nature of any policy change, especially in relation to international norms. At only 0.5 percent of GDP, the level of US foreign exchange reserves is far lower than in other major economies (3 percent in the euro area, 6 percent in the United Kingdom, 22 percent in China, and 25 percent in Japan).[23]

It is sometimes asserted that reserve currency–issuing countries do not need foreign exchange reserves, because they have little or no debt in foreign currencies. Although their reserve needs are indeed lower, such countries, including the United States, are still subject to volatile swings in exchange rates and disorderly market conditions. Having a stock of reserves commensurate with potential market flows is a prudent policy. On this basis, US foreign exchange reserves are far too low.

22 A net investment position of –50 percent of GDP is stabilized with nominal GDP growth of 4 percent and a current account deficit of 2 percent of GDP. However, a reasonable norm for the United States would be to have a net investment position closer to, or even above, zero.

23 Data are for 2019; they come from the IMF's *International Reserves and Foreign Currency Liquidity* and *World Economic Outlook* databases. The economies shown in table 1 have even larger holdings of official foreign assets as a percent of GDP.

It would take several years for US purchases of 0.5 percent of GDP (roughly $100 billion) a year to get US reserves close to the levels of European countries.[24] It would take decades at that pace to reach the levels of many Asian countries. Purchases could proceed even more slowly to the extent that the dollar depreciates significantly at the outset. The key is to assure markets that purchases are gradual and conditional on the evolution of the trade balance. The goal is greater stability of the world economy by leaning against global trade imbalances.

A gradual ramping up of US foreign exchange reserves would be quite different from countervailing currency intervention targeted at currency manipulators. The latter policy would involve purchasing only the currency of the offending country, in an amount equal to past manipulation. To gradually ramp up reserves, the United States should buy a broad basket of currencies, including at least the other reserve currencies included in the IMF's special drawing rights (SDR) basket. An even broader basket would be desirable, both for diversification and for broad dissemination of the effects on trade.

If a gradual intervention policy did not push the dollar down enough to hold the US current account deficit significantly and sustainably below 2 percent of GDP, policymakers might consider instituting a modest tax on capital inflows. Senators Tammy Baldwin and Josh Hawley have proposed one such tax. Their market access charge (MAC) would tax purchases of US assets by foreigners, discouraging capital inflows and putting downward pressure on the dollar. Such a tax would be similar to the one Brazil imposed several years ago.

The MAC would represent a marked reversal of decades of US advocacy of untrammeled international financial markets. In many ways, it would be a classic Main Street, as opposed to Wall Street, policy choice, with benefits spread widely throughout the economy and costs focused narrowly on the financial sector. The primary arguments against the MAC are that it is not as flexible as foreign exchange intervention and that it would require a new enforcement apparatus. However, it may prove to be the only policy option that can achieve lasting trade balance without building up an excessively large portfolio of foreign currencies. Although foreign exchange intervention in a stabilizing direction should be profitable on average over time—as Milton Friedman (1953) argued—volatility in currency markets means that any large position is subject to gains and losses within a given year or even over a few years. In contrast, the MAC would reliably generate modest revenues year in and year out.

Would a remarkable shift toward exchange rate activism by US policymakers spark a true global currency war? Such an outcome seems unlikely. US actions would be fully legal under international rules, whereas retaliatory intervention by foreign governments to prevent a narrowing of trade imbalances would be a violation of the IMF Articles of Agreement. A retaliatory inflow tax by surplus countries would also be inconsistent with IMF (2012) guidelines. Moderate actions by the United States and other deficit countries to narrow trade imbalances would be in support of the IMF and G20 goals of sustainable and balanced

24 Purchases of reserves do not require any budgetary outlay as they reflect a swap of one asset for another. Nor do they have any implications for budget projections as the Congressional Budget Office scores the future earnings on the foreign currency reserves equal to the interest expense on the Treasury debt issued to buy them.

growth and should receive the blessing of these international institutions. Retaliation would be opposed to these agreed goals and destabilizing for the global economy and should garner international opprobrium.

CONCLUSION

After decades of neglect, the ongoing trade deficit has led the US economy far down an unsustainable and increasingly dangerous path of net international debt. It has also contributed meaningfully to the erosion of US manufacturing jobs (even if its effect is less important than the effect of technological trends). Based on the effects of the 2014–15 dollar appreciation, a dollar policy that shrinks the US trade deficit from 2.5 percent of GDP to zero would likely increase manufacturing output by 1.8 percent of GDP to a level 16 percent higher than it would otherwise be. Employment in manufacturing would rise significantly.

The new dollar policy would not impose any targets or restrictions on exchange rates. Instead it would ramp up or down intervention in the foreign exchange market or taxes on capital inflows as needed to lean against prospective trade imbalances.

Correcting the trade deficit is far less urgent than dealing with the COVID-19 pandemic. But eliminating the deficit sooner rather than later would benefit the United States. Moreover, in an era in which monetary and fiscal policies are perceived to have less room to maneuver than they once did, the temptation to abuse exchange rate policy to achieve growth at the expense of a country's trading partners is likely to be great. The United States should take a principled leadership role in establishing standards of behavior consistent with a gradual narrowing of global imbalances to make growth more sustainable and beneficial for all.

President Trump's strategy for reducing the US trade deficit failed; the deficit only widened under his policies. It is time for a new strategy guided by sound economic theory and evidence. A more activist US dollar policy, as argued in this Policy Brief, is not only fully consistent with US international obligations, it would also help bring about the sustainable and balanced growth outcomes espoused by the IMF and the G20 countries.

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